

# CHIOCOCCA HENRICKSONII (RUBIACEAE), A NEW SPECIES FROM THE CHIHUAHUAN DESERT REGION

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## ABSTRACT

Two specimens from desertic mountains of Coahuila, Mexico, are described as *Chiococca henricksonii*, distinguished by its extreme xeromorphy, microphyllly, and inflorescences that are reduced to solitary flowers. Tetramerous flowers are reported in the genus for the first time. *Chiococca henricksonii* appears to have relationships to *C. alba*, *C. pachyphylla*, and *C. petrina*.

***Chiococca henricksonii* M. C. Johnston, sp. nov.**

Frutex humilis rupestris caulibus divaricatis hispidulis, folia coriacea elliptica hispidula laminis 4–6(–9) mm longis, flores solitarii 4–5-meri, calycibus hispidulis (Fig. 1).

Low shrub; branches numerous, divaricate, short, with internodes 1–4(–8) mm long, densely hispidulous with white, erect hairs 0.1 mm long; leaves coriaceous, hispidulous; blades elliptical, 4–6(–9) mm long; petioles 1–1.5(–2) mm long; flowers solitary, axillary; pedicels 1–1.5(–2) mm long, hispidulous; sepals 4–5, oblong, obtuse, ca. 1 mm long, hispidulous, pale green at first, persistent and darkly pigmented in fruit; corolla “dark yellow” (*Johnston 8738*), funnelform, ca. 7 mm long including tube ca. 4.5 mm long, gradually dilated upward, and 4–5 obtuse spreading lobes (apparently valvate in bud), caducous; stamens 4–5, ca. 6 mm long, inserted at very base of corolla-tube, paddle-shaped, with free filaments ca. 3 mm long and oblong acute anthers ca. 3 mm long, about half exerted beyond the corolla-tube and reaching about the midpoint of the corolla-lobes; ovary hispidulous; drupe (apparently slightly immature) laterally compressed, sub-orbicular, ca. 4 mm long and broad not including persistent sepals, white; seeds 2, brownish, narrowly ovoid.

TYPE: Mexico, Coahuila, 1–2 km n. of Puerto Colorado, near crest at sw. end of Sierra de la Fragua (near 26°45'N, 102°30'W), high limestone ridge with forest of *Pinus pinceana* Gordon, shrub flat against rock, rooted in solution-holes, fruit white with black stigma, above 1750 m, 2 Sep 1941, *I. M. Johnston 8738*. (Holotype: LL; isotypes: GH, MICH).

PARATYPE: Mexico, Coahuila, ca. 2.4 km sw. of Las Delicias on e. side of Sierra de las Delicias, at margin of scree-slope along canyon

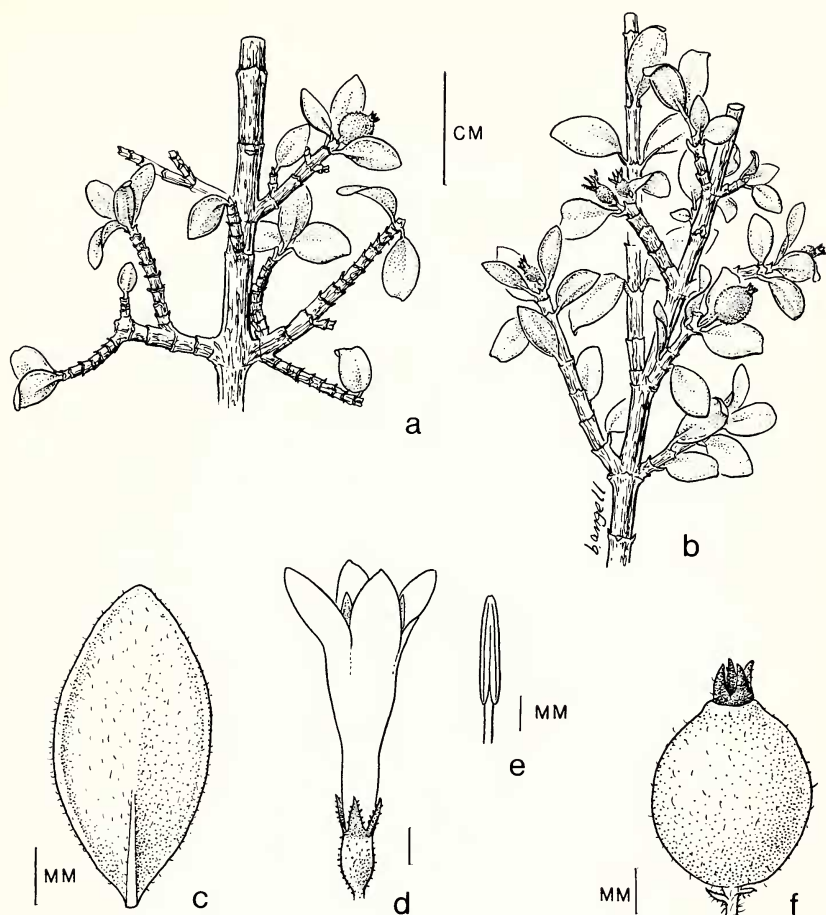


FIG. 1. *Chiococca henricksonii* M. C. Johnston, drawn from *I. M. Johnston 8738*. a. Mature stem showing characteristic shoots after leaves fall. b. Mature stem with leaves of current season and fruit. c. Leaf, abaxial view. d. Flower. e. Anther, adaxial view. f. Almost mature fruit, showing subtending bracts.

ca. 400 m above main spring (26°14'N, 102°49'W), with *Agave lecheguilla*, *Hechtia*, *Acacia*, *Dasyllirion*, *Tecoma*, *Viguiera*, *Leucophyllum*, *Euphorbia*, small shrub with snow-white fruits and one fasciated branchlet, ca. 1600 m, 15 Aug 1973, *Henrickson 12471* (LL, MEXU).

In Standley (1926), *Johnston 8738*, with its constantly tetramerous flowers, keys to the apparently closely related, monotypic, Yucatanian *Asemnanthe* Hooker f. But *Henrickson 12471*, otherwise identical to *Johnston 8738*, has constantly pentamerous flowers as in the rest of the genus *Chiococca*. I conclude that in this case the number of sepals

and petals is not of taxonomic value, but that the diagnosis of *Chiococca* must be modified to take into account rare cases of tetramery. Without much more thorough study, I decline to pass judgment on the merit of retaining *Asemnanthe* as a distinct genus.

*Chiococca henricksonii* is apparently related to *C. alba* (L.) Hitchcock, which is widespread in warmer parts of America, and to *C. pachyphylla* Wernham of the Sierra Madre Oriental. It is quite distinct in habit, foliage, pubescence, and inflorescence from those two species. *Chiococca henricksonii* may find its closest relative in the almost equally xerophytic and microphyllous *C. petrina* Wiggins of Sonora and extreme western Chihuahua. The leaf-blades of *C. petrina* average slightly larger than those of *C. henricksonii* and its larger flowers are borne in racemes.

The two known localities for *Chiococca henricksonii* are only 70 km apart and lie in some of the driest, most rigorous parts of the Chihuahuan Desert Region in southwestern Coahuila, where a number of other local endemic species have been discovered. Although gypseous substrates are common in the general region, the substrates at the two localities are essentially pure limestone (Henrickson, pers. comm., 1980; T. L. Wendt and E. Lott, pers. comm., 1980).

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#### LITERATURE CITED

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